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This report reviews research which is pertinent to the Washington, D.C. Integrated Secondary Education Project. Reviewed in particular is research dealing with educational change and innovation, compensatory education practices, and school integration and segregation. Twenty-seven widely adopted educational innovations and a number of innovations which have limited acceptance or use are discussed. A description of the community involved in the project and of the educational needs of persons in the area is also provided. An extensive bibliography is included. (LB)

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Addendum II

Progress Report

of the

Washington Integrated Secondary Education
Project

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REVIEW OF RESEARCH PERTINENT TO THE WISE PROJECT

An important component of any new educational venture is to determine through careful examination of the research literature what has already been accomplished and what have been some of the results. The WISE Project with its very extensive plans and scope has much literature to draw on as it designs, structures, changes and introduces an educational program to meet the needs peculiar to the community within a context of social, economic and cultural forces of paramount significance to the local people and the broader society.

The present review of research has been selective to the extent that it focuses on those areas which seem most pertinent to the WISE Project. Research, then, has been selected first from studies concerning change. The anatomy of change, the obstacles to change, the effecting of change are discussed in light of the available research.

The second area receiving careful attention is innovations. Innovations of curriculum, administration, organization, planning and philosophy are included. The innovation incorporated in school systems today are identified, defined and evaluated. Further, suggestions for implementing innovations which derive from research experience are included.

The third area considered in this review includes an examination of compensatory educational practices currently used in various school systems. While some of these practices are innovative they focus more specifically on the educational problems of disadvantaged children.

The fourth area concerns the research on integration and segregation and the implications for education of these practices. The learning and achievement variables are included, as are the effects of integration and segregation on learning and achievement.

THE ANATOMY AND PROCESS OF CHANGE

Most school systems are aware of how difficult it is to effect change. Blocks to change may come from a resistant board of education or a resistant teacher. Any group or person opposed to change is able to prevent change occurring. Reasons for opposing change may be based on evidence that the impending change is contrary to some research findings or contrary to a particular philosophy of education. On the other hand, resistance to change may be nothing more than a reluctance to have anything different. There is indeed a kind of security in the status quo and change for the sake of change is not sufficient to warrant its occurrence. Dapper (1967) stated that the roadblocks to bringing about change in the schools were part of "the syndrome of buck-passing... The public blames the superintendent; the superintendent says the teacher won't go along with change; the teachers claims the superintendent, board and public won't support them". However, the evidence is overwhelming that education which relies on research for its defense

must change. Further, as society and the institutions of society change, as communities and students change, the mandate for educational change is paramount.

While most citizens and educators may agree that change is necessary, indeed, inevitable, they do not always agree on how change is best effected. Research on the ways to effect change in education has not been as prevalent as research on new programs or new buildings. One carefully conducted piece of survey research on the process of effecting change, conducted by Henry M. Brickell, describes the dynamics of instructional change and the procedure for effecting it. His findings are summarized here.

Change generally tends to take place within schools while the structure of the educational institution remains stable. Changes of an innovative nature occur more slowly when the structure of the educational institution is involved.

Commissioner Allen of New York State expressed the limitations of change as follows:

Schools...adopt new textbooks, alter the content of some traditional courses, add honors sections to some subjects, change the way they selected students for instructional groups, and accelerate the pace at which bright students move through a standard sequence of courses. Few innovations embodied changes in the kind of people employed, in the way they were organized to work together, in the types of instructional materials they used, or in the times and places at which they taught.

There seems to be a defensible rationale for the tendency toward stability or resistance to changes of schools:

A school, like any other institution, tends to continue doing what it was established to do, holding itself relatively stable and resisting attempts at restructuring. There is a sound reason for this: stability in the institutional structure makes for maximum output of the results that structure was designed to produce. Any change in the arrangement of its elements tends to cut down production, at least until new habit patterns are formed. (Brickell, p. 19)

Institutions, then, by their very need for maximum output develop patterns and routines which allow them to do their tasks efficiently. Change is a disturbance and is accepted only where the pressure for change is greater than the resistance to it.

There are two distinct groups of people who might be expected to influence structural change in the local public schools: the public, which is external to the institution, and the profession, which is internal to

it. The process of local educational change is determined by the relationships of these two groups: the public and the board of education as external, the administrators and the teachers as internal. (Brickell, p. 19)

Demands for change tend to come from the outside. The public and its representatives, the board of education, make the demands. The school administrator is the most crucial person in translating the demands from the outside into changes within the institution. He is the key to effecting change within the school structure.

One of the tasks of a chief administrator - such as a superintendent of schools - is to take external demands for different results and translate them when necessary into new patterns for organizing the elements of the institution (or for changing the elements).

Like the teachers, the administrator has a stake in maintaining stability so that traditional results can be produced. He also must be particularly responsive to demands for new kinds of results. Schools are usually structured so that the chief administrator can be kept responsive to external demands: the superintendent serves in a contract relationship to a lay board of education.

Even before new demands are expressed locally, an administrator who sees nearby schools like his own making structural changes may anticipate the local pressures which are to come and move in advance to meet them. (Brickell, p. 20)

The survey indicated that most boards of education are not agents in determining the path of educational innovation but their influence is decisive when exerted. Dapper (1967) in his work also came to the conclusion that few boards of education have been the instrument for educational change.

Parents and citizens' groups seldom "exert a direct influence in the adoption of new types of instructional programs but their influence is decisive when exerted." (Brickell, p. 20)

Neither parents nor boards of education, then, were found to be the instigators of instructional change. Further, teachers were found not to be agents of instructional change either. Brickell stated next that:

New types of instructional programs are introduced by administrators. Contrary to general opinion, teachers are not change agents for instructional innovation of major scope. (p.24)

Classroom teachers are limited in the kinds of change they may initiate at the instructional level. The research states they are restricted to three types of instructional change:

Classroom teachers can make only three types of instructional change in the absence of administrative initiative: (1) change in classroom practice, (2) relocation of existing curriculum content, and (3) introduction of single special courses at the high school level. (Brickell, p. 24)

As a result of this limitation, Brickell derives two implications:

(1) Classroom teachers cannot be expected to introduce new types of instructional programs without administrative attention and (2) in-service courses designed for individual teachers rather than for entire departments or faculties (that is, courses designed to improve the teacher rather than to change the program) should be limited to matters which can be accomplished in one of the three ways indicated above. (Ibid.)

Colleges and universities have assumed very little leadership in influencing instructional innovations in elementary and secondary schools. They have not been organized to exert direct influence in school programs and indeed have not considered this to be one of their basic responsibilities. Colleges and universities accept their role in training teachers as of critical importance, but do not tend to go much beyond general training.

Brickell described the role of colleges and universities and their responsibility to teacher education and training for change as follows:

Teacher education programs, according to the people who staff them, do not attempt to equip the prospective teacher with specific instructional techniques is said to be the responsibility of the schools which employ the college graduates. (p. 47)

Further, as far as change is concerned, teacher education programs do not train teachers in how to carry out new instructional processes until those processes are in general use in the elementary and secondary schools. However, the universities do agree on the importance of continuing in-service education:

No one in the profession understands the necessity for continuous in-service education as well as the college personnel who are providing pre-service education. They understand as no one else does how much more is needed to develop professional competence. (p. 49)

In short, teacher education programs have been followers of practices in the schools rather than innovators, but they have recognized the importance of in-service education and have assumed some responsibility

for making in-service education programs available.

Ideas for change may come from various sectors of the community, but the effectors of change within the school must finally be the school administrators. They must prepare teachers to accept change and must provide certain kinds of experiences to enhance the possibility of successful change. Brickell suggested some ways to maximize change and states the implication of these methods:

The most successful innovations are those which are accompanied by the most elaborate help to teachers as they begin to provide the new instruction. Implication: Instructional innovation should be accompanied by substantial, continuing assistance to the teachers. (p. 31)

He continued with greater elaboration of ways to make change acceptable to teachers:

The most persuasive experience a school person can have is to visit a successful new program and to observe it in action. Speeches, literature, research reports and conversations with participants outside the actual instructional setting are interesting but relatively unconvincing. Implication: Recommended new programs must be demonstrated so that they can be observed in action.

Anything abnormal, unreal or artificial in the circumstances surrounding an observed program - that is to say, anything appreciably different from conditions in the visitor's own school system - can rob a visit of persuasive effect. Implication: Recommended new programs must be demonstrated in schools quite similar to those from which visitors come. (pp. 27, 29)

Administrators must be alert not only to teachers' reactions to the changes, but also to their evaluation of the changes. The study emphasized the fact that teachers will use student behavior to evaluate the merits of change.

Instructional innovations are almost always evaluated by observing the reactions of the students while they are receiving the new instruction. In the eyes of the practitioner, no other evidence outweighs student reaction as a measure of success. More complex evaluative techniques are rarely used. Implications: (1) Local school systems cannot be expected to generate, on their own initiative, anything more than observational evidence of the value of their innovations, (2) Observers who visit demonstrations of recommended new programs should be given an opportunity to talk with students about their reactions to the new instruction. (Pupil reaction is considered sufficient as a criterion of instructional success.)

As a final statement concerning instructional change, Brickell identified three phases for change. Further, he pointed out the danger of not recognizing the three phases as separate and needing separate personnel.

The key conclusion of this study is that the DESIGN, the EVALUATION, and the DISSEMINATION of innovations are not at all the same. They are three distinctly different processes. The circumstances which are correct for any one of them are essentially wrong for the others. They cannot be reconciled.

Phase 1:

DESIGN. The ideal circumstances for the design of an improved instructional approach are artificial, enriched and free.

At their best, they provide a group of highly intelligent people, a somewhat limited problem, time to concentrate on a solution, ample money and resources, freedom to try almost anything, the likelihood that the solution will be used somewhere, and the prospect of personal recognition if the problem is solved. The more artificial, enriched and free the setting, the more distinctive the innovation it is likely to produce.

Phase 2:

EVALUATION. The ideal circumstances for the evaluation of a new instructional approach are controlled, closely observed, and unfree. At their best they provide conditions in which the forces which might influence the success of the new approach can be controlled when possible and kept under close surveillance when actual control is impossible. The freedom which is essential in searching for a good design is destructive in the making of a good evaluation.

Phase 3:

DISSEMINATION. The ideal circumstances for dissemination of a new approach through demonstration are those which are ordinary, unenriched, and normal. At their best, they are exactly like the everyday situations in the observer's own school and community. Anything which the observer could label "abnormal" or "unrealistic" - such as the enriched conditions necessary for good design or the controlled conditions necessary for proper evaluation - is sufficient to rob the observed program of persuasive effect.

The most formidable block to instructional improvement

today is that education - unlike medicine, agriculture, and industry - fails to distinguish the three phases of change: design, evaluation and dissemination. Moreover, it fails to support adequately the basic research which should precede the design phase. (pp. 62-63)

Many school administrators have recognized their role as effectors of change within the school system and some have been highly successful. They have studied their experiences, tested hypotheses, and have formalized their findings as guidelines. Glattham (1967) and Howard (1967) presented some guidelines for innovation in schools. Glattham, a superintendent, in analyzing change in his own school system, provided these guides to innovation and identified some of the persistent problems:

Guides to Innovation from a Superintendent

First Year:

Change the structure. Building, schedule, size of learning groups, and provide time and space for independent study.

Second Year:

Change the people. Staff in-service training.

Third Year:

Change the program. Curriculum and learning materials.

Here are the things we believe strengthened our staff and made our program work:

1. We stressed the instructional advantages of the new programs and gave teachers wide latitude in proposing alternatives.
2. We leaned heavily on department chairmen and strengthened their position with the faculty.
3. We benefited from an administrative team that included men with attitudes about change ranging from middle-of-the-road to extreme; our interaction and open differences strengthened the program.
4. We strived for objectivity in acknowledging mistakes and earnestly solicited faculty and student support to correct them.
5. We held frequent meetings of teachers and administrators in both small and large groups to discuss innovation problems.

6. We scrounged money where we could so that no teacher was ever denied an important teaching tool - and every teacher with a constructive and creative idea was given the time and materials.

The following problems seem to be the persistent and pervasive ones:

1. Innovative education is taxing and tiring.
2. There will be problems of teacher morale - too much work, too much change, too much pressure.
3. The innovative school is always in the spotlight. Student discipline most vulnerable place for innovative school.
4. The innovative school with its valid concern for instructional program and development of student use of freedom will tend to overlook the mechanics of efficient administration.
5. There is a temptation to sit still - to repeat last year's innovation.

Our mistakes and successes have left us with these conclusions:

Be prepared to carry out your own in-service program.

Develop a systematic plan for change.

Run an open school.

Share the wealth.

Howard provided six operating principles for administrators to bring about innovations.

Here are six operating principles for school administrators who are serious about introducing innovations - rather than superficial change - to their schools and communities:

1. Put the philosophy of the school to work. Write it.

Your school's philosophy can be effective when:

It is stated in terms specific enough to guide the operational decisions the staff and administration must make;

It is used consistently by the designated leaders in the school, especially the principal, as a guide for administrative decision-making.

Faculty decisions are evaluated on the extent to which they are consistent with the stated philosophy.

2. Build your program from the bottom up. It will endure longer because it will carry with it the built-in commitment of the teachers who were involved in developing it.
 3. Encourage an experimental attitude. You are better off if you supplant inefficient, capricious trial-and-error methods with thoughtful ones that are systematically evaluated.
 4. Pace the rate of change carefully. The principal is usually in the best position to regulate the pace of change within the school.
 5. Make school structure support its program. The administration can stimulate thoughtful change by manipulating the schedule, the organizational plan of the school, its physical facilities, budget and procedures handbook. But this approach, based on veiled coercion, is calculated to result in superficiality and a minimum of staff commitment.
- When new ideas come from the bottom as well as the top of the school hierarchy, the administrative structure can support rather than cause innovative activity. Administrators in such schools assume the role of organizational specialists. Their job is to build organizational structures (such as schedules, statements of procedures, budgets and so forth) that will support the innovative activities undertaken by the faculty.
6. Don't confuse flexibility with sloppiness.

Change can be effected, but the anatomy of change and the instruments for bringing about change have not been clearly understood. This section has attempted to clarify the components of change, the sources of change, the effectors of change and the procedures for change. Too many instructional or educational innovations have been abandoned by those who sincerely attempted to improve education in the schools. The next section identifies twenty-seven innovations which have been adopted by large numbers of school systems. These innovations are evaluated in terms of effectiveness

and retention in the adopting schools. Following the twenty-seven widely adopted innovations are descriptions of some which have limited acceptance or use.

INNOVATIONS

A major national study was reported in the March 1967 issue of Nation's Schools describing many innovations. One phase of the study reported on twenty-seven innovations found in practice in the nation's high schools. The findings of this phase of the study are presented here in the following organization: (1) innovation and area; (2) definition; (3) rationale; (4) evaluation; and (5) percentage of the 7,237 accredited high schools using the innovation. After this presentation an overall evaluation of innovation appears.

TWENTY SEVEN INNOVATIONS IN 7,237 HIGH SCHOOLS

1. PSSC PHYSICS (Curriculum)

Definition: One or more classes use the Physical Science Study Committee materials as the basic reference.

Rationale: Depth exploration of basic structure of physics by concentrating on fewer concepts. Well planned laboratory experiments. D.C. Heath & Co.

Evaluation: Results indicated able students profit from the instruction, but at least one major study suggests an interest in science courses in the last few years.

Percentage of use in schools: 43% of schools.

2. CHEM STUDY CHEMISTRY (Curriculum)

Definition: One or more classes use the Chemical Educational Materials Study as the basic reference.

Rationale: Represents combined judgment of the scholar and teacher on a beginning course covering important chemistry concepts. W.H. Freeman & Co.

Evaluation: Designed primarily for able students. Most teachers need special training to utilize the materials effectively.

Percentage of use in schools: 39% of schools.

3. CBA CHEMISTRY (Curriculum)

Definition: One or more classes use the Chemical Bond Approach materials as the basic reference.

Rationale: Scholars and Teachers beginning course. McGraw-Hill Book Co.

Evaluation: Most appropriate for able students and even with them, teachers have often had to make modifications despite careful revisions.

Percentage of use in schools: 10% of schools.

4. SMSG MATH (Curriculum)

Definition: One or more classes use the School Mathematics Study Group materials as the basic reference.

Rationale: Scholars and Teachers. Closer sequential presentation. Yale University Press.

Evaluation: Effective in accomplishing some of the newer objectives, but less than had been hoped for. First materials more appropriate for able students but others have now been designed for slow learners.

Percentage of use in schools: 30% of schools.

5. UICMS MATH (Curriculum)

Definition: One or more classes use the University of Illinois Committee on School Mathematics materials as the basic reference.

Rationale: Pioneer. Help students discover principles and develop problem solving skills. D.C. Heath & Co.

Evaluation: On traditional tests students do about as well as those taught in conventional manner. Teachers require training.

Percentage of use in schools: 5% of schools.

6. ESCP PHYSICAL SCIENCE (Curriculum)

Definition: One or more classes use the Earth Science Curriculum Project materials as the basic reference.

Rationale: Laboratory oriented course at 8th and 9th grade levels. Houghton Mifflin Co.

Evaluation: Good continuity. Still in field evaluation stages.

Percentage of use in schools: 10% of schools.

7. SSSP PHYSICAL SCIENCE (Curriculum)

Definition: One or more classes use the Secondary School Science Project (Princeton); physical science course using "Time, Space and Matter" as the basic reference.

Rationale: Acquire principles of scientific inquiry through investigation procedures. McGraw-Hill Book Co.

Evaluation: Tests being validated to evaluate effects of materials.

Percentage of use in schools: 3.5% of schools.

8. HUMANITIES COURSE (Curriculum)

Definition: One or more classes of an elective or required course given for at least a semester's credit which combines instruction in art, music, literature, philosophy and history.

Rationale: Provides experiences in an important area many schools have come to neglect because of concentration on sciences and social studies.

Evaluation: Not readily compared with other courses. Schools that have adopted it find student interest may be slow at first but intensifies after students have had experience with the ideas and philosophies of the humanities.

Percentage of use in schools: 8% of schools.

9. TELEVISION INSTRUCTION (Methodology)

Definition: One or more classes regularly use open or closed circuit television as a means of teaching courses for credit.

Rationale: Increase courses, supplemental and enriched experiences, etc.

Evaluation: A large number of studies show that we do not yet know how to use TV well, or at least there is disagreement on how. Studies on achievement have shown both more and less can be achieved by TV than by conventional instruction.

Percentage of use in schools: 16.5% of schools.

10. PROGRAMMED INSTRUCTION (Methodology)

Definition: A course designed for independent use in which students regularly use programmed materials (without a machine) so they proceed in small steps, respond to information, and are informed immediately whether or not the response is correct.

Rationale: Sequential and independent, immediate reinforcement.

Evaluation: No significant difference. Students evaluate according to conditions and materials. Can be used with some degree of success for enriched or special kinds of teaching, can produce higher achievement than mediocre or poor teacher.

Percentage of use in schools: 29% of schools.

11. TEACHING MACHINE (Methodology)

Definition: A mechanical device which presents a computerized educational program designed to teach a student through controlled communication used regularly in the classroom instruction.

Rationale: Same as programmed, but controls content to be exposed. Self-instructional. Used by students without direct supervision.

Evaluation: About the same as for programmed instruction.

Percentage of use in schools: 13% of schools.

12. LANGUAGE LABORATORY (Methodology)

Definition: One or more foreign language classes use tapes and tape recorders to help the audio-lingual method of teaching.

Rationale: Speaking facility is acquired sooner.

Evaluation: Research studies are difficult to summarize because most reports provide no indication whether teachers were fully trained to use the aural-oral method. There is evidence that tape recordings prepared by competent persons can positively effect fluency.

Percentage of use in schools: over 71% of schools.

13. EDP EQUIPMENT (Administrative Aids)

Definition: Electronic accounting machines and computers are used for class scheduling, reporting marks, attendance, accounting and so forth.

Rationale: Reduce cost and speed up information.

Evaluation: Beginning. Takes time to get operating smoothly.

Percentage of use in schools: 28% of schools.

14. TELEPHONE AMPLIFICATION (Methodology)

Definition: One or more classes periodically arranges to amplify telephone conversations dealing with information being studied in class.

Rationale: Saves expense of persons and is stimulating.

Evaluation: Limited so far. Cost is less than paying large travel expenses. Contributes to vitality of the classroom and provides first-hand information.

Percentage of use in schools: 5 % of schools.

15. SIMULATION OR GAMING (Methodology)

Definition: One or more classes periodically uses a device to create realistic political or social situations in class for helping students to become involved in decision making.

Rationale: Creates a more realistic learning situation.

Evaluation: Very limited evaluation has been made thus far but experience has shown it to be effective in generating high levels of motivation and involvement.

Percentage of use in schools: 15% of schools.

16. **FLEXIBLE SCHEDULING (Administrative)**
Definition: The school operates on a variable schedule which starts with modules of 5 to 20 minutes and organizes the day into various combinations of these modules according to the different learning environments required.
Rationale: Provides a better basis for organizing learning experiences which vary according to teachers' requirements. Large and small group instruction, learning labs or library time and individual study.
Evaluation: Low achievers reported more problems with it than average or high and unsupervised study time caused more problems than any of the other learning activities. Tests results showed critical thinking abilities were improved.
Percentage of use in schools: 14.8% of schools.
17. **TEAM TEACHING (Staff Utilization)**
Definition: A course under the direction of two or more faculty members all of whom participate directly in planning and meeting the class sessions.
Rationale: Extend specialized teaching competencies of certain teachers and provide a more flexible basis of organization.
Evaluation: No greater achievement. Better use of faculty.
Percentage of use in schools: 41% of schools.
18. **COLLEGE CREDIT COURSES**
Definition: High School students take advanced placement courses and examinations or a similar kind of arrangement, whereby credit is given for college level courses.
Rationale: Meets needs of able students.
Evaluation: Successful way of encouraging able students. Colleges differ on accepting for credit.
Percentage of use in schools: 28% of schools.

19. **NONGRADED PROGRAM (Class Organization)**

Definition: Placing students in ungraded classes to move at individual rate.

Rationale: Students may pursue any course in which they are interested, and have the ability to achieve, without regard to grade level or sequence; subjects are not divided into semesters and students progress on individual basis.

Evaluation: No comprehensive evaluation made thus far at high school level.

Percentage of use in schools: 5% of schools.

20. **AIDES-PARA-PROFESSIONAL (Teacher Aides)**

Definition: Use of non-degree persons for assisting teachers in essentially non-teaching duties such as evaluating student compositions, supervising halls, or checking papers.

Rationale: Can result in improved instruction because teachers are given more time to engage in planning and preparation.

Evaluation: Many teachers would prefer a reduced load so they can do their own evaluation and some find it difficult to delegate responsibility. Aides need training and close communication with the teachers involved. Good for handling routine matters.

Percentage of use in schools: 29% of schools.

21. **HONOR STUDY HALLS (Students)**

Definition: No teachers present in study halls; sometimes monitored by students.

Rationale: Self-discipline and greater freedom. Former for student and latter for teachers.

Evaluation: Not all students able to handle time wisely. Accident responsibility not clarified.

Percentage of use in schools: 25% use, but highest abandonment rate; 6%

22. **WORK-STUDY PROGRAM (Class Organization)**

Definition: A plan for integration of classroom work and practical experience through alternative attendance at class and employment in business, industry or government. Distributive education programs may also be counted.

Rationale: Relate classroom training to job requirements. Low income students have incentive to stay in school.

Evaluation: Good programs decrease dropout rate for certain students. Cooperation from business is good. Flexible instruction necessary.

Percentage of use in schools: 50% of schools.

23. **SCHOOL-WITHIN-SCHOOL (Class Organization)**

Definition: An organizational design whereby a large secondary school is divided into smaller schools, each having its own administration, guidance staff, building space, and students.

Rationale: Combats the "bigness" problem becoming increasingly common in urban areas by creating a number of smaller schools within a large plant. Students know teachers better and participate more in all phases of the program.

Evaluation: Morale improves. Affords students closer identity with their school. Problems relate to joint use of staff and facilities.

Percentage of use in schools: 2.7% (can only be used in large schools).

24. **CULTURAL ENRICHMENT (Curriculum)**

Definition: A regular program attempting to expose students to elements of society outside the school, such as concerts, lectures, museums.

Rationale: Provides experiences. Appears useful in raising aspirations of students who would not otherwise have such opportunities.

Evaluation: Very positive effect on the over-all achievement of disadvantaged students. Both teachers and students report favorably on it in communities where serious efforts have been made.

Percentage of use in schools: 31% of schools.

25. STUDENT EXCHANGE (Special Experience)

Definition: During the last three years, at least one foreign student has attended your school for a year, and one of your students has spent a year in an overseas school as part of an exchange program.

Rationale: Improve international understanding.

Evaluation: Improve foreign language fluency. Need to make adjustments in courses to meet state graduation requirements. Correspondence courses sometimes used.

Percentage of use in schools: 37% of schools.

26. OPTIONAL ATTENDANCE (Class Attendance)

Definition: An attempt to encourage independent study by permitting students to have a choice as to whether or not they will attend class regularly.

Rationale: More effective use of time and less dependency on instructor.

Evaluation: Students who did attend class more regularly made somewhat greater achievement gains than the more independent students.

Percentage of use in schools: 4 % of schools.

27. EXTENDED SCHOOL YEAR (Administrative)

Definition: The total number of days students attend school (exclusive of summer sessions) is in the area of 200 days or more, or at least approximately two weeks in excess of what may be legally required.

Rationale: Greater use of facilities and reduce capital expenditures for construction in the long run.

Evaluation: Not enough data are available to make a thorough evaluation.

Percentage of use in schools: Few, although many have fully developed summer programs for enrichment and remediation purposes.

The study revealed some important observations in terms of evaluation of innovations and limited use of research techniques:

1. The diffusion rate for accepting new ideas is now more rapid in secondary schools than it was before. Change in American education has moved from a crawl to a walk.
2. Schools and states vary greatly in their innovation rates. Cost appears to be a retarding factor in many cases. But other evidence on innovation suggests that perhaps spending slightly more for certain kinds of administrators - concerned with several innovations or at least one - can produce change when fund restrictions are a factor.
3. A careful search of the literature discloses an abundance of material on so-called innovations in curriculum, technology and organization. But little is known about the effects of different treatments or strategies of learning over a meaningful period. This is perhaps the most discouraging aspect of what some call the bandwagon phenomenon with innovation.
4. The literature search also suggests that there are relatively few authentic inventors in the school field.
5. The high abandonment rate for some innovations, such as certain new science and math curriculums, television, programmed instruction and team teaching, stresses the need for careful planning before adoption and careful attention during the early years. Reasons for abandonment were not part of this study.
6. The haphazard way changes are introduced in schools leads to highly uneven efforts across the country. Continued and intensified efforts from school administrators will be needed to clarify the change process and to subject new ideas to better scrutiny on a large scale basis. Schools must develop discrete goals, a system for continuous evaluation, and a willingness to acknowledge weakness in planning for change.

These findings from the study reinforce the importance of the role of the administrator in effecting change. The findings also emphasize the hazards and limitations of effecting and evaluating innovation.

The study also produced reports of projects that only a few high school appear to be undertaking - innovations that appear to be truly innovative by any standards. Among them are:

1. Differentiated staff. Classifications range from scholar to aide, and expectations for each group are much different. Varied salaries.

2. Counselors assigned to teachers. Involves both in working with reluctant learners and with curriculum improvement.

3. Involvement in social problems. Free time from school to become involved in urban area problems.

4. Student government. Deal with real school concerns.

5. Intervisits among schools, teachers.

6. Slow learner programs.

7. Daily demand schedules. More flexible than modular scheduling, this approach relies on brief meetings on the previous day to establish teacher requirements that are used to prepare the schedule to be followed the next day.

8. Sensitivity training. This process opens up communication among staff members so that basic questions leading to change can be pursued frankly rather than artificially.

9. Intervention strategies. Personnel are brought in from outside the district to help accomplish changes that internal barriers tend to inhibit.

10. Computer-assisted instruction and other information retrieval devices. Still mostly in the design and experimental stages.

Innovations are attractive and school systems adopt many of them. They also abandon many of them because of problems in understanding the use and role of the innovation and because the introduction of the innovation into the school is not well expedited.

The District of Columbia has introduced many innovations during the past few years, largely as a result of the availability of funds since 1964 through the Office of Economic Opportunity and the additional funds made available under the various Titles of the Elementary and Secondary Education Act, 1965.

Edith H. Grotberg in a speech delivered January 20, 1967, in Washington, D.C. summarized the innovative programs in the District as follows:

Many new programs and services have been added to the public schools of the District. The list is surprisingly

long; teacher aides; Saturday morning orientation programs for pre-school children and their parents; improvement of the classroom environment through audio-visual aids and technology; programs for emotionally disturbed children; cultural programs; reading and mathematics assistance in the classroom from master teachers; early morning physical fitness program; primary summer school; reading program for junior high school entrants; summer camp programs both musical and educational; summer workshops for teachers of special classes; extended school day; Head Start; program for dropouts; reading incentive seminars; summer enrichment programs; and college orientation programs.

If you examine the list, you will see that many of the programs require increased involvement in the community. Indeed, the school is increasingly being thought of in community terms. The community school concept is probably a major factor in resolving the problems of educationally disadvantaged children.

One project in Washington, D.C. under Title III involves the same geographic area as WISE. This project is called Project 370, because it was the 370th project funded under Title III, PACE, i.e., Projects to Advance Creativity in Education. The program includes the arts, in-service experiences and training for teachers, involvement of local universities, community cultural facilities and the cooperation of parents.

The purpose is to provide creative experiences for bright children which are different from the traditional classroom experiences. The program is for three years and, while it is still in the planning stage, aims to develop a cadre of teachers who are trained to work with above average students. Teams of these teachers will at a later date move into other city schools to demonstrate how the techniques can be adapted to varying circumstances.

The community focus of educational planning is an important feature of the WISE Project. Since the project is still in its developmental phase it cannot be analyzed or evaluated. One model of coordinated planning involving a broad base of community representation is provided by Rochester, New York. Herman Goldberg, Superintendent of the Rochester, New York public schools, described their Title III project, UNIQUE, as follows:

Project UNIQUE attempts to set forth goals for stimulating and coordinating the active involvement of many aspects of community effort to find some solutions for pressing problems in urban education. It is, in reality, a grant proposal under Title III (PACE) of ESEA for twelve projects, which has been developed by the Center for Cooperative Action in Education.

Instead of separate approaches to parts of the problem we tried, through Project UNIQUE, to look at needs of teachers, of children, of administrators, of college professors (those responsible for teacher education), and of civil rights groups to identify ways of working together. We also evolved some rather new ways of working closely with people who may doubt the values of quality integrated education.

Goldberg described the components of the program by identifying the twelve projects which form the plan for education in Rochester as follows:

- I The Urban-Suburban Transfer Plan:
designed to provide additional Negro children in the City School District with access to integrated school experiences through a metropolitan approach to the reduction of racial imbalance.
- II The World of Inquiry School:
an exemplary, multi-racial, multi-age non-graded school designed to involve pupils from the entire metropolitan community.
- III The Community Resources Advisory Council:
through which the entire community will be dynamically engaged in urban education.
- IV The Storefront School:
to demonstrate quality, innovative, integrated education to the public.
- VI SPAN - Parent Advisor:
will provide fourteen School Parent Advisors for the Neighborhood in economically distressed areas of Rochester.
- VII RISE - College Tutorial:
will provide fifteen underachieving students with an opportunity to continue their education at local colleges and universities.
- VIII Clearing House for Student Aid:
to centralize and distribute information concerning available funds for needy students who wish to continue their education.
- IX Community Teachers:
designed to develop a positive relationship between home and school.
- X Teacher Internship Plan:
to provide college graduates with a one year internship in an inner city school.
- XI Urban Education Major:
to involve active participation of experienced inner city teachers in a graduate program concentrated on urban education.
- XII Community Missionaries:
to create a favorable climate for the acceptance of quality, integrated education throughout the entire community.

Goldberg emphasized the careful planning and thinking necessary for a project to be effective and identified the dynamics of Rochester planning which might ensure a long range success of the project.

He stated:

These projects represent, hopefully, a difference in urban education. These are not shot-gun approaches, but have been built up by the City School District of Rochester in the last four years. With our open enrollment, our activity with the suburbs, with our very close connection with the University of Rochester and our plans to make a real impact on teacher education through the Urban Education Major Component, we feel that this is hardly something concocted for the occasion, but is a natural kind of development to what we have done with our funds in the last several years.

COMPENSATORY EDUCATION AND A COMMUNITY FOCUS

Further reports of community oriented educational planning as well as other kinds of compensatory educational programs are presented by Edmund Gordon in a recently published book. Concerning the community school concept, Gordon states:

According to this view, the school, as the institution which occupies the central place in neighborhood life, should assume the responsibility for seeing to it that needed services in all areas are provided to the community the school serves.

For example, the community school concept in New Haven views the school not only as an educational center, but as a neighborhood community center. It should provide facilities for cultural, recreational and club activities, serve as a center for community services, provide health, legal, counseling, employment, and other service activities, and be a center of neighborhood and community life...

In Detroit, community schools are open from 8 a.m. until late at night. In addition to the regular school program, they offer afternoon enrichment and remedial activities to the children, after-school and evening recreational and educational activities for adults, and summer programs of education, enrichment and recreation to adults and children alike. (p. 116)

Gordon alluded to the early history of the community school concept for large cities. He states:

Among the earliest organized approaches to dealing with school problems are the Ford Foundation Great Cities Gray

Areas Programs. In five cities, Oakland, New Haven, Boston, Philadelphia, and Washington, D.C., and one state, North Carolina, these programs were planned, with varying degrees of success, to encourage the mobilization of public and private community resources to deal with a whole gamut of interrelated problems: housing, employment, health, and schooling...This approach has served as a model for the urban and rural Community Action Programs. (p. 115)

Gordon described a number of plans for compensatory education and identified cities and communities which are carrying out the plans. He identified programs including team teaching, mobile personnel, volunteers, field experiences, after-school programs, and summer programs.

Team Teaching. In a program like New York City's newly instituted More Effective Schools, a team of four teachers is assigned to three elementary school classes, numbering not more than 22 pupils each. In Pittsburgh, as many as 120 students may be grouped for instruction under a team of four teachers and a team leader, augmented by a teacher intern and a paid team mother or aide trained in handling audiovisual equipment, duplicating equipment, and classroom supplies. Early primary grade teams in Pittsburgh are assembled on the basis of grade level. Intermediate teams are composed of teachers of different subjects: language arts, social studies, science, arithmetic and library. Junior high school teams are organized by subject matter. In practice, the total group of students, whether it is 60 or 120, is rarely taught as a unit. While one or more team teachers are instructing a large group in one room, other members of the team work with groups as small as five or six (or even with a single pupil), to provide special work, remedial help, or - in the case of pupils with outstanding ability - enrichment. Within the team-teaching structure, pupil groupings will be influenced by the specific learning tasks and will vary in size according to the nature of the subject and the ability and achievement level of the students. Where the subject matter contains technical content, smaller groups may be necessary. Where the subject matter contains less technical material and the emphasis is on social learning, larger groups may be preferable.

Children involved in a team-teaching project may be grouped in homerooms, heterogeneously, as in the More Effective Schools project, or, more commonly, homogeneously on the basis of reading ability. They may spend as much as 85 per cent or as little as 10 per cent of their week in team-teaching structured activities. In Tucson's seventh and eighth grade Safford Exploratory Program, for example,

each grade-level team devotes a four-hour block of time daily to group work. This arrangement permits much flexibility in the scheduling of large- and small-group instruction periods, field trips, and special programs. On the other hand, team teaching occupies only one afternoon a week in Project Able in Albany. During that time no bells are rung and elementary school pupils spend two hours exploring a particular area of interest with the aid of teachers particularly qualified in that field along with numerous outside consultants. Each semester the pupil group shifts to a new interest area and new teachers so that by the end of four years each pupil has explored eight areas such as arts and crafts, science, music, and so forth, in these special sessions. A team-teaching demonstration project in a New Rochelle junior high school used a four-teacher team at each grade level solely for social studies instruction. The pupils, who were grouped homogeneously in their regular school program, were grouped in heterogeneous teams for their social studies classes in an experiment designed to determine the effect of this sort of grouping on their achievement and their attitudes. (p. 60-61)

Mobile Personnel. However, in addition to being expensive, formation of new classes is sometimes impossible because of space limitations. In response to this problem, the Chicago school system tried putting a teacher who was free of class duties into project schools where no room was available to form extra classes. Two new classes of personnel who could effectively reduce teacher-pupil ratio developed from the experiment: special service teachers to work with the children in small groups for reading or arithmetic coaching, assist the classroom teachers, prepare curriculum materials, and so forth; and master teachers to help new teachers understand the problems of disadvantaged children and to initiate them into teaching methods that have proved effective in the classroom.

A number of projects have made use of mobile personnel, variously designated as coaching teachers, curriculum experts, project consultants, project teachers, and so on, to provide a variety of services for the classroom teacher. These skilled teachers may present demonstration lessons, provide special instructional materials, maintain resource rooms, help with room decoration, provide small group instruction in the areas of remedial reading or literature enrichment. (p. 67)

Volunteers. The Urban Service Corps in Washington, D.C. has provided services and personnel of all sorts to the Capital's schools, ranging from volunteers to offer music and literature enrichment activities, to specially trained counselor aides

and remedial reading aides, who provide assistance to professional personnel in those areas. The Junior Volunteers Project in New York City utilizes the abilities, talents and time of six hundred 13 to 15-year-old junior high school students who are drawn from the neighborhood served and provided with extensive inservice training. (p. 69)

Field Trips. No techniques for enlarging the self-awareness of the disadvantaged child and simultaneously enriching his educational experience have been so widely used as those of taking the child into the community and bringing the community to the child. This is done by field trips and visits from guest speakers. (p. 73)

After-School Programs. Programs that begin with a simple aim, like the project in the community of Ken-Gar in Montgomery County, Maryland, initiated as a volunteer tutoring project in private homes, often end up, as did that program, involved in much more ambitious and extensive programs of assistance. In many cases, once the initial effort has made clear the extent of the need and the availability of help to meet it, tutoring programs started by volunteers have been taken over by the school boards and incorporated, along with the volunteer tutors, into the school program.

Where programs of this kind have been organized by, or adopted by the school system, study centers are often located in the school itself, either in classrooms or in libraries. Sometimes they are, like the volunteer programs, located throughout the community, in churches, homes, community centers, or other available facilities. In Syracuse, study and counseling centers are located in a school, in a community center, in two converted rented stores... (p. 87)

Staffs for the programs are equally varied. Volunteer college students who are preparing for teaching make up the staffs of study centers in San Francisco. In Oakland, many of the tutors are secondary school pupils, selected on the recommendation of their counselors and trained in a summer workshop for their assignments as tutors.

In Sacramento, a series of neighborhood study centers was developed to provide the place, the materials and, on demand, the individual help and encouragement for effective study. Pretty much the same combination of ingredients is characteristic of hundreds of programs, whether they are community or school based, in operation throughout the country. Many centers are open on Saturday mornings

as well as during the school week.

Summer School Programs. As effective as the after-school and weekend programs of enrichment and remedial work are, there is perhaps no single area of extracurricular activity that has so convincingly demonstrated its usefulness in compensatory education as the well-planned summer school program. (p. 93)

As a result of examining most of the programs in the nation, Gordon identified those ideas and practices which seemed to show promise:

1. Effective teaching - None of the programs studied have come up with a substitute for effective teaching. They have also failed to develop the effective approach to teaching. The teachers who are judged to be successful are those who have developed sensitivity to the special needs, the variety of learning patterns and the learning strengths and weaknesses of their pupils. These teachers have also developed a wide variety of instructional techniques and methodologies by which they communicate knowledge with which they are very familiar and attitudes of respect and expectation which they strongly hold.

2. Child-parent-teacher motivation - In the absence of revolutions in educational technology, one of the most promising areas for emphasis is that of motivation. Few programs have generated more enthusiasm for learning or better pupil gains than those which involved teachers, parents, and children in active and creative motivational campaigns. Utilizing a wide variety of motivational schemes, these programs have raised the level of expectation on the part of teachers, have greatly increased parent participation in the school as well as home-based learning experiences and have helped youngsters to find pleasure and reward in learning.

3. New materials and technology - One of the significant developments of the current period is the emergence of instructional materials more widely representative of the variety of ethnic groups which exist in this country. The better material in this category not only includes more appropriate graphic art but the prose is more pertinent to the realities of the pupil's life...

4. Peer teaching and learning - Most often the pattern is that of older children serving as tutors for younger children with both showing gains from the experience. The practice not only has many tangential social benefits, it also has the advantage of replicating the naturalistic out-of-school experiences of children, where they generally tend to learn from each other.

5. **Psycho-educational diagnosis and remediation** - It is well established that disadvantaged children are a high-risk population with respect to developmental abnormalities.. Excellent program will include or at least have access to such staff and facilities.

6. **Learning task specific grouping** - Grouping of youngsters for instruction should flow from the nature of the learning task and not from the bias of the teacher of the school system. In work with disadvantaged children the social gains which may also be derived from flexible grouping should not be ignored.

7. **Extensions of the school** - Where competing forces operate outside of school, it is often necessary to extend the school day, week, or year so as to increase the period during which the school's influence may be felt.

8. **Staffing -**

a. Teachers who have good basic backgrounds in academic disciplines, combined with particularly good instructional skills. Most programs stress some appreciation for the cultures from which pupils come, but instructional techniques that work seem to provide the best payoff.

b. More staff

c. Supporting staff. Social workers, psychologists, physicians, nurses, community organizers, remedial specialists, guidance specialists, and home-school liaison officers drawn from the surrounding environment.

9. **Social or peer-group support** - Particularly in work with adolescents and college-bound youth the peer group or appropriate social or extensive reference groups are used to provide morale support... This is particularly important in young people whose upward mobility may appear to be taking them away from the groups with which they identify.

Compensatory education has attempted to help disadvantaged children close the gap between their achievement and that of advantaged children. Closely related to problems of disadvantaged children are problems of integration and segregation. The next section treats the research of these areas.

INTEGRATION AND SEGREGATION

Before the findings of the two major studies on segregation and integration reported by the United States Commission on Civil Rights (1966 and 1967) are discussed, earlier research findings should be noted.

The Syracuse Public Schools reported in 1964 that there is "better motivation and achievement registered by Negro students who attend integrated schools." (Barry, 1965) As early as 1952, Boyd reported that "Negro students in a non-segregated elementary school were to compete more aggressively and have increased aspirational behavior as compared with segregated Negro children." Jenkins and Randall (1948) found that in a study of freshmen and seniors attending 48 Negro colleges, those who had previously attended integrated schools got high grades. In 1953, Werthem reported that "Negro children who changed from segregated to integrated schools made distinctly better academic progress than they had shown before." Carl F. Hansen reported in 1960 that "subsequent to desegregating in 1955, and prior to the insuperable obstacles to continued integration impend by long term population trends the District of Columbia Negro students registered significant gains in achievement."

The September, 1965, issue of the Information Retrieval Center on the Disadvantaged, Yeshiva University, New York, New York, contains a comprehensive bibliography on desegregation and integration. In discussing the problems of desegregation as revealed by an examination of the research included in the bibliography, Baxly A. Wehersin makes these observations:

As recent experience demonstrates, merely to enroll white and Negro pupils in common schools by no means constitutes an adequate approach to equality. Many problems remain to be solved, only a few of which can here be cited.

First, the academic achievement of large numbers - not all - of the Negro children in recently desegregated schools is substantially below that of their fellow-pupils. Whether this discrepancy results from their depressed social-class backgrounds or from substandard programs in their formerly segregated schools, or both, the need for special remedial instruction to help overcome their handicaps is patent.

Second, current practices in ability-grouping often result in high-achieving classes which are quite, or all-Negro. Such segregated classes in desegregated schools cannot but nourish racial prejudice among white children, and thwart wholesome ego development among Negro children. Considering the failure of many scores of investigations to confirm the assumed benefits of ability-grouping for learners of any race, a re-evaluation and revision of this practice has long been in order. Now, with the coming of school desegregation, it is especially urgent.

Third, as many studies have shown, a pervasive, white-middle-class bias is characteristic of the readers, textbooks, and other instructional materials used in our public schools. Such materials, always antithetical to education for democratic society, are perhaps even more incongruous and harmful in desegregated schools.

Fourth, large numbers of both white and Negro teachers have been inadequately prepared - by their social experiences and their professional education - to cope effectively with the instructional problems associated with desegregation. Even teachers with democratic and highly professional purposes - which probably means most teachers commonly lack the theoretical insights, social attitudes, and instructional skills which are essential for integrating social-class and ethnic diversity in the classroom. There is a general and pressing need for vital, large-scale programs of in-service education which are developed around the specific problems of teaching in desegregated schools.

Thus, those civil rights leaders who focus attention almost exclusively upon school desegregation, largely ignoring such problems and compensatory measures as are here cited, tend likewise to negate their asserted goal. Although the ideology of the civil rights movement makes a valid distinction between "desegregation" and "integration" the demands for which the movement really struggles tend toward a one-sided emphasis. Rarely do they include the measures necessary to transform the administrative arrangements of desegregation into the educational processes of integration.

The democratic goal for which both our profession and the civil rights movement should strive is equality of educational opportunity in integrated schools which function on a high level of quality. Its attainment, admittedly difficult, will require both desegregation and compensatory education, together. They may not properly be viewed as alternative; only their synthesis can suffice.

Then, before the reports of the United States Commission on Civil Rights, 1966 and 1967, much had been understood about the problem of integration as a result of research and studies.

The first report of the United States Commission on Civil Rights appeared in 1966 under the title of Equality of Educational Opportunity. The summary of that study, which involved all pupils in grades 3, 6, 9 and 12 from 4,000 public schools, highlights the following points:

Facilities... Nationally, Negro pupils have fewer of some of the facilities that seem most related to academic achievement; they have less access to physics, chemistry and language laboratories; there are fewer books per pupil in their libraries; their textbooks are less often in sufficient supply. To the extent that physical facilities are important to learning, such items appear to be more relevant than some others, such as cafeterias, in which minority groups are at an advantage. (p. 9)

Teachers... The quality of teachers shows a stronger relationship to pupil achievement. Furthermore, it is progressively greater at higher grades, indicating a cumulative impact of the qualities of teachers in a school on the pupil's achievement. Again, teacher quality is more important for minority pupil achievement than for that of the majority. ... other characteristics which offer rough indications of teacher quality, including the types of colleges attended, years of teaching experience, salary, educational level of mother, and a core on a 30-word vocabulary test. The average Negro pupil attends a school where a greater percentage of the teachers appears to be somewhat less able, as measured by these indicators, than those of the schools attended by the average white student. (p. 14)

...Among those measured in the survey, however, those that bear the highest relationship to pupil achievement are first, the teacher's score on the verbal skills test, and then his educational background - both his own level of education and that of his parents. On both of these measures, the level of teachers of minority students, especially Negroes, is low. (p. 22)

Post High School Preparation... A pupil's test results at the end of public school provides a good measure of the range of opportunities open to him as he finishes school - a wide range of choice of jobs or colleges if these skills are very high; a very narrow range that includes only the most menial jobs if these skills are very low.

...For example, half of the white 12th grade pupils had scores above 52 on the nonverbal test and half had scores below 52...The minority pupils' scores are as much as one standard deviation below the majority pupils' scores in the first grade. At the 12th grade, results of tests in the same verbal and nonverbal skills show that, in every case, the minority scores are farther below the majority than are the 1st graders... Thus, by this measure, the deficiency in achievement is progressively greater for the minority pupils at progressively higher grade levels.

... Schools provide no opportunity at all for them to

overcome this initial deficiency; in fact, they fall farther behind the white majority in the development of several skills which are critical to making a living and participating fully in modern society.

...The schools are remarkably similar in the effect they have on the achievement of their pupils when the socio-economic background of the students is taken into account.

...The achievement of minority pupils depends more on the schools they attend than does the achievement of majority pupils.

...The conclusion can then be drawn that improving the school of a minority pupil will increase his achievement more than will improving the school of a white child increase his... This indicates that it is for the most disadvantaged children that improvements in school quality will make the most difference in achievement.
(pp. 20 - 21)

Peer Influences. Finally, it appears that a pupil's achievement is strongly related to the educational backgrounds and aspirations of the other students in the school.

... Thus, if a white pupil from a home that is strongly and effectively supportive of education is put in a school where most pupils do not come from such homes, his achievement will be little different than if he were in a school composed of others like himself. But if a minority pupil from a home without much educational strength is put with schoolmates with strong educational backgrounds, his achievement is likely to increase.

... The principal way in which the school environments of Negroes and whites differ is in the composition of their student bodies, and it turns out that the composition of the student bodies has a strong relationship to the achievement of Negro and other minority pupils.

... For example, a pupil attitude factor, which appears to have a stronger relationship to achievement than do all the "school" factors together, is the extent to which an individual feels that he has some control over his own destiny... Minority pupils have far less conviction than whites that they can affect their own environments and futures. When they do, however, their achievement is higher than that of whites who lack that conviction.

...Furthermore, while this characteristic shows little relationship to most school factors, it is related, for Negroes, to the proportion of whites in the schools. Those Negroes in schools with a higher proportion of whites have a greater sense of control. Thus such attitudes, which are largely a consequence of a person's experience in the larger society, are not independent of his experiences in school.

Effects of Integration on Achievement

An education in integrated schools can be expected to have major effects on attitudes toward members of other racial groups. At its best, it can develop attitudes appropriate to the integrated society these students will live in; at its worst, it can create hostile camps of Negroes and whites in the same school. Thus there is more to "school integration" than merely putting Negroes and whites in the same building, and there may be more important consequences of integration than its effect on achievement.

Yet the analysis of school effects described earlier suggest that in the long run, integration should be expected to have a positive effect on Negro achievement as well. An analysis was carried out to examine the effects on achievement which might appear in the short run. This analysis of the test performance of Negro children in integrated schools indicates positive effects of integration, though rather small ones. Results for grades 6, 9 and 12...the highest average score is recorded for the Negro pupils where more than half of their classmates were white.

...Those pupils who first entered integrated schools in the early grades record consistently higher scores than the other groups, although the differences are again small.

No account is taken in these tabulations of the fact that the various groups of pupils may have come from different backgrounds. When such account is taken by simple cross-tabulation on indicators of socioeconomic status, the performance in integrated schools and in schools integrated longer remains higher. Thus although the differences are small, and although the degree of integration within the school is not known, there is evident even in the short run an effect of school integration on the reading and mathematics achievement of Negro pupils. (p. 28)

The second Civil Rights Commission Report appeared in 1967, entitled Racial Isolation in the Public Schools. The summary of that report reinforces the findings of the first report and provides further evidence for the effects of integration and segregation on children and youth:

The outcomes of education for Negro students are influenced by a number of factors including students' home backgrounds, the quality of education provided in their schools, and the social class background of their classmates. In addition to these factors, the racial composition of schools appears to be a distinct element. Racial isolation in the schools tends to lower students' achievement, restrict their aspirations, and impair their sense of being able to affect their own destiny.

By contrast, Negro children in predominantly white schools more often score higher on achievement tests, develop higher aspirations, and have a firmer sense of control over their own destinies.

Differences in performance, attitudes, and aspirations occur most often when Negroes are in majority-white schools. Negro children in schools that are majority-Negro often fail to do better than Negro children in all-Negro schools. In addition, the results stemming from desegregated schooling tend to be most positive for those Negro children who began their attendance at desegregated schools in the earlier elementary grades.

An important contributing element to the damage arising from racially isolated schools is the fact that they often are regarded by the community as inferior institutions and students and teachers sense that their schools are stigmatized. This has an effect on their attitudes which influences student achievement.

Racial isolation also appears to have a negative effect upon the job opportunities of Negroes. Negro adults who experienced desegregated schooling tend to have higher incomes and more often hold white-collar jobs than Negro adults who attended isolated schools. These differences are traceable to the higher achievement levels of the Negroes from desegregated schools, and, in part, to the fact that association with whites often aids Negroes in competing more effectively in the job market.

Attendance in racially isolated schools tends to generate attitudes on the part of Negroes and whites that lead them to prefer association with members of their own race. The attitudes appear early in the

schools, carry over into later life, and are reflected in behavior. Both Negroes and whites are less likely to have associations with members of the other race if they attended racially isolated schools. Racial isolation not only inflicts educational damage upon Negro students when they are in school, it reinforces the very attitudes and behavior that maintain and intensify racial isolation as well.

Moreover, the absence of interracial contact perpetuates the sense that many whites have that Negroes and Negro schools are inferior.

Racial isolation in schools has apparent effects on both Negro children and adults. This effect can be direct and obvious -- as in impaired achievement and aspirations. It can be indirect and subtle -- as in the negative interracial attitudes and behavior which further perpetuate the racial isolation. In either case, it contributes to the continuing process of damage and isolation. (p. 113)

The studies reported on integration correctly point out the advantages to Negro children of integration. The only report of advantages to white children is in human relations, understanding, and the fact that their achievement is not damaged by integration. The fact that there are no apparent educational gains for white children within integrated schools cannot be overlooked when administrators resist urban-suburban solutions to the problems of the segregated disadvantaged by the statement their pupils have nothing to gain through integration.

The rationale for integration must be on basis of the fact that racial tensions tend to be reduced through interracial education and that an educated society is essential to a successful democracy. Keerland probably experienced the rationale best when he defined integrated education:

It is an education in which the child learns that he lives in a multi-racial society in a multi-racial world; it is one that teaches him to judge individuals for what they are rather than what group they belong to; from it he learns that differences among people are not as great as similarities and that difference is a source of acclaim and value rather than a thing to be feared and denied.

The final justification for integration is in values consistent with democracy.

THE WISE COMMUNITY

James Aven has described the community involved in the WISE Project. His description provides a focus for applying all of the information presented up to this point in this review of research. The problems in effecting change, the problems in deciding on effective innovations, the problems of compensatory education, and the problems of integrated education -- the major areas of research reviewed -- all pertain to the WISE Project. Aven described the community and its needs as follows:

1. THE COMMUNITY

The Washington Integrated Secondary Education (WISE) Project is in a unique position to fulfill a mission in education in the capital of the nation. The population to be served, as a consequence of its own history, is multi-racial and international in composition. The population is economically, socially, intellectually and culturally representative of the changing needs with which our dynamic society has confronted us in recent years. The school population has evolved from a homogeneous neighborhood oriented student body, almost exclusively seeking entrance to college to a school population derived city wide from a multitude of nations, races and cultures heterogeneous as to purpose and needs.

A. The Population of the Area

The primary focus of the WISE Project is to serve a membership of 3880 students in four secondary schools in Washington, D.C. Tables I and II give a summary of the population and the white and Negro student membership in the schools to be served in relation to that of the district. The white student enrollment in the project area and the total district is 32 and 9 per cent respectively in comparison to a white population of 91 per cent in the project area to 45 per cent for the district. The Negro student enrollment in the project area and the total district is 68 and 91 per cent respectively in comparison to a Negro population of 9 per cent in the project area to 55 per cent for the District.

Table II gives the white and Negro student enrollment in the four schools to be served, and a racial balance is evident in two of them, Western and Gordon. Jefferson and Francis do not have this favorable racial balance, but along with Gordon, they serve as feeder junior high schools for Western. Thus, the racial

Table I

**Summary of the Student Membership and Population in the area of
the WISE Project in Relation to that of the District**

Student Memberships in area to be served: <u>1/</u>	<u>Number</u>	<u>Percent</u>
Caucasian	1,246	32
Negro	2,634	68
Total	3,880	100

Student Memberships in the District of Columbia: <u>1/</u>		
Caucasian	13,580	9
Negro	134,569	91
Total	148,149	100

Population within the area to be served: <u>2/</u>		
Caucasian	118,633	91
Negro	11,234	9
Total	129,867	100

Population of the District of Columbia: <u>2/</u>		
Caucasian	345,263	45
Negro	418,693	55
Total	763,956	100

1/ Schools of the District of Columbia: Pupil Membership, Department of Research, Budget and Legislation; Office of The Statistical Analyst; November 10, 1966

2/ United States Census of Housing 1960; Washington, D.C.; U.S. Office of Commerce; Bureau of the Census. (The 1966 estimates indicate the Caucasian population to be 60 percent and the Negro population to be 40 percent in the area to be served.)

Table II

The Caucasian and Negro Student Memberships in the WISE Project 1/

		<u>Boys</u>	<u>Girls</u>	<u>Total</u>	<u>Percent</u>
Francis JHS	Caucasian	18	14	32	4
	Negro	432	413	845	96
	Total	450	427	877	100
Gordon JHS	Caucasian	271	263	534	53
	Negro	212	271	483	47
	Total	483	534	1017	100
Jefferson JHS	Caucasian	63	53	116	19
	Negro	219	272	491	81
	Total	282	325	607	100
Western SHS	Caucasian	281	283	564	41
	Negro	363	452	815	59
	Total	644	735	1379	100
Total	Caucasian	633	613	1246	32
	Negro	1226	1408	2634	68
Grand Total		1859	2021	3880	100

1/ Schools of the District of Columbia; Pupil Membership, Department of Research, Budget and Legislation; Office of The Statistical Analyst; November 10, 1966

balance for these schools and for the total population provides an excellent educational opportunity to develop a quality program for economically, socially, intellectually, culturally and racially balanced schools. *

B. The Location of the Area

The location of the schools and the area to be served by the project is illustrated in Figure I. The area includes about 35 per cent of Washington, D.C. The four schools to be served by the project are as follows:

1. Francis Junior High School
24th and N Streets, N.W.
2. Gordon Junior High School
35th and T Streets, N.W.
3. Jefferson Junior High School
8th and H Streets, S.W.
4. Western High School
35th and R Streets, N.W.

II II. STATEMENT OF NEED

The educational and cultural facilities and resources available in the geographic area to be served, the general needs of the students, the rationale for the project and the financial inadequacy of local resources for providing the needed service emphasizes the priority of the WISE Project.

A. The Educational and Cultural Facilities and Resources Available in the Geographic Area

Washington, D.C. is one of the great cities of the world. In this setting, the American heritage can be studied better than anywhere else, and in this setting of culture and history is centered the leadership of the western world. The educational and cultural features and resources available are probably more numerous than any area of the same size in the world. The art galleries, museums, theaters, and government agencies that serve the nation are concentrated in an area less than ten miles square. And in this setting, almost every country in the world has an embassy that serves its own government. The District is developing as dynamically as at any time in the past. Government agencies are reorganizing and whole areas of the city are under redevelopment.

* The 1966 estimate of white-Negro ratio is 60:40.

B. The Needs of Persons in the Area

The Washington Integrated Secondary Education Project was born out of the desperate need to demonstrate to the Nation's Capital and indeed to the country that quality secondary education can be obtained in comprehensive integrated schools. In this project the integrated and comprehensive enrollment of the four schools involved is considered the most valuable factor upon which to build an exceptional educational experience for children living in a comprehensive society.

The WISE complex schools, Western High School and three "feeder" junior high schools, Gordon, Jefferson and Francis, form a microcosm. These are the only remaining complex of secondary schools in Washington with an enrollment which cuts across the racial, social, cultural and economic levels found in the Nation's Capital. The four schools are bounded on one side by the Potomac River and reach into the inner city for their pupils. The 3880 students in these schools come from across the ten miles of the District of Columbia. Among its pupils are students from nearly fifty foreign countries, and nearby resources include embassies, universities and light industry. In addition, there are many other resources that are unique to Washington, such as the Arena Stage, the National Art Gallery, the Smithsonian Institution, Dumbarton Oaks, and Federal government facilities. The area also includes two of the highest income census tracks and two of the lowest census tracks in the District.

Racially and economically the project is dealing with very delicate balances. Middle class parents-- whether Negro or white -- have the same educational aspirations for their children. Over and over again in Washington, when the white middle class enrollment of a school has dropped, the Negro middle class enrollment has also.

Paramount to the success of the WISE project will be the presence of the middle class white and Negro college oriented proportion of students in the enrollment. If these students are lost to suburban and private schools, the WISE schools will be immediately out of balance and their diversity will be diminished.

C. Rationale for WISE

Quality education in an integrated setting is the basis of the WISE proposal. Integration is not defined solely in racial terms. Racial integration is but one part of an integrated whole, a whole that contains the affluent and the poor, the academically gifted and the slow learner, the culturally advantaged and the socially disadvantaged. Such integrated schools contain the vitality inherent in an enrollment reflecting a cross-section of society. They are in striking contrast to inner city and suburban schools whose enrollments are segregated racially, academically and socio-economically.

WISE recognized that an integrated school complex containing a comprehensive cross-section of the city requires an exceptional academic program if it is to meet the needs of its diverse enrollment. Moreover its curriculum must be reinforced by special programs designed to promote communications between students as individuals.

D. Financial Inadequacy of Local Resources

The financial inadequacy of local resources for funding the WISE project is evident from the statement of needs. There are no regular district funds available for the project.

To the degree that the WISE project is able to utilize research evidence to meet the educational needs of the children it should provide new knowledge and information to help other cities in the nation resolve their educational problems. Much that has been done in promoting better education is not research supported. Innovation for innovation's sake is dangerously frequent and little research evidence supports the incorporation of innovations. The present review indicates some of the findings and limitations in findings of research and also provides guidelines for bringing about effective educational change.

BIBLIOGRAPHY

Change, Innovation and Opportunity

- Brickell, Henry M., Organizing New York State for Educational Change. The University of the State of New York, The State Education Department, Albany, New York, December, 1961.
- Cawelti, Gordon, "Innovative Practices in High Schools: Who Does What--and Why--and How", Nations Schools, 79:56-74. (April, 1967)
- Dapper, Gloria and Barbara Carter, A Guide for School Board Members. New York: Follett Publishing Company, 1966.
- Equality of Educational Opportunity, Office of Education, Department of Health, Education and Welfare, Washington, D.C., 1966.
- Allan A. Glatthorn, principal and Thomas R. Bowman, superintendent, Abington High School, Abington, Pa., "Into Each Innovation Some Grief Must Fall", Nations Schools, 79:4 (April 1967) pp. 76-77.
- Goldberg, Herman, "Community Planning for Title III: The Rochester Story", Urban School Notes, February, 1967, Vol. 2 No. 5.
- Gordon, Edmund W. and Doxey A. Wilkerson, Compensatory Education for the Disadvantaged, New York: College Entrance Examination Board, 1966.
- Howard, Eugene R., "How to be Serious About Innovating", Nations Schools, Vol. 79 No. 4 (April 1967) pp. 89-90.
- Nations Schools Special Study: How High Schools Innovate, Vol. 79, No. 4, (April 1967)
- "Progressing Toward Better Schools: Third Report on Staff Utilization Studies", The Bulletin of the National Association of Secondary School Principals, January 1960, Vol. 44, No. 252.
- Racial Isolation in the Public Schools, Vol. 1, A Report of the United States Commission on Civil Rights, 1967. U.S. Government Printing Office, Washington, D.C.
- Teacher Aides in Public Schools, NEA Research Bulletin, May 1967, pp. 37-39.

Learning Problems of Disadvantaged

- Barton, Allen H., "Social Class and Instructional Procedures in the Process of Learning to Read", New Developments in Programs and Procedures for College Adult Reading (edited by Ralph C. Staiger and Culbret Y. Melton), Twelfth Yearbook of the National Reading Conference, Milwaukee, Wisconsin: Marquette University, 1963, pp. 167-74.

- Bernstein, Basil, "A Public Language: Some Sociological Implications of a Linguistic Form", British Journal of Sociology, 10:311-26; December 1959.
- Bernstein, Basil, "Language and Social Class", British Journal of Sociology, 11:271-76; September 1960.
- Brazziel, William F., and Mary Terrell, "An Experiment in the Development of Readiness in a Culturally Disadvantaged Group of First Grade Children", Journal of Negro Education, 31:4-7; Winter 1962.
- Bruner, Jerome, "The Cognitive Consequences of Early Sensory Deprivation", Sensory Deprivation, (edited by Philip Solomon and others), Cambridge, Mass.: Harvard University Press, 1961. Chapter 13, pp. 195-207.
- Christine, Dorothy and Charles Christine, "The Relationship of Auditory Discrimination to Articulatory Defects and Reading Retardation", Elementary School Journal, 65:97-100; November 1964.
- Cohn, Stella M., "Upgrading Instruction Through Special Reading Service", Reading Teacher, 18:477-81; March 1965.
- Deutsch, Martin, "The Disadvantaged Child and the Learning Process", Education in Depressed Areas, (edited by A. Harry Passow), New York: Bureau of Publications, Teachers College, Columbia University, 1963; pp. 163-79.
- Deutsch, Martin, "Facilitating Development in the Pre-School Child: Social and Psychological Perspectives", Merrill-Palmer Quarterly, 10:249-63; July 1964 (a).
- Deutsch, Martin, "Social and Psychological Perspectives on the Development of the Disadvantaged Learner", Journal of Negro Education, 33: 232-44; Summer 1964 (b)
- Deutsch, Martin, and Bert Brown, "Social Influences in Negro-White Intelligence Differences", Journal of Social Issues, 20:24-35; April 1964.
- Deutsch, Martin, and others, "Guidelines for Testing Minority Group Children", Journal of Social Issues, 20:129-45; April 1964.
- Edwards, Thomas J., "The Language-Experience Attack on Cultural Deprivation", Reading Teacher, 18:546-51, 556; April 1965.
- Figurel, J. Allen, "Limitations in the Vocabulary of Disadvantaged Children: A Cause of Poor Reading", Improvement of Reading Through Classroom Practice, Newark, Delaware: International Reading Association, 1964; Vol. 9, pp. 16075.
- Frazier, Alexander, "A Research Proposal to Develop the Language Skills of Children with Poor Backgrounds", Improving English Skills of Culturally Different Youth in Large Cities, (edited by Arno Jewett, Joseph Mersand

and Doris V. Gunderson), U.S. Department of Agriculture, Economic Research Service, Agricultural Economic Report No. 12; Washington, D.C.: U.S. Department of Agriculture, July 1962; 28 pp.

Froe, Otis D., "Educational Planning for Disadvantaged College Youth", Journal of Negro Education, 33:290-303; Summer 1964.

Gordon, Edmund W., "Counseling Socially Disadvantaged Children", Mental Health of the Poor, (edited by Frank Riessman, Jerome Cohen, and Arthur Pearl), New York: Free Press of Glencoe, 1964; pp. 275-82.

Gottlieb, David, "Goal Aspirations and Goal Fulfillments: Differences Between Deprived and Affluent American Adolescents", American Journal of Orthopsychiatry, 34:934-41; October 1964.

Grotberg, Edith H., "The Washington Program in Action", Education, 85:490-94; April 1965.

Grotberg, Edith H., "Learning Disabilities and Remediation in Disadvantaged Children", Review of Educational Research, 35:413-25; December 1965.

Jewett, Arno, Mersand, Joseph, and Gunderson, Doris V., editors; Improving English Skills of Culturally Different Youth in Large Cities; U.S. Department of Health, Education and Welfare, Office of Education, Bulletin 1964, No. 5; Washington, D.C.: Government Printing Office, 1964; 216 pp.

Loban, Walter, "Language Ability in the Elementary School: Implications of Findings Pertaining to the Culturally Disadvantaged", Improving English Skills of Culturally Different Youth in Large Cities, (edited by Arno Jewett, Joseph Mersand, and Doris V. Gunderson), U.S. Department of Health, Education and Welfare, Office of Education, Bulletin 1964, No. 5; Washington, D.C.: Government Printing Office, 1964, pp. 62-68.

Newton, Eunice Shaed, "Verbal Destitution: The Pivotal Barrier to Learning", Journal of Negro Education, 29:497-99; Fall 1960.

Newton, Eunice Shaed, "Planning for the Language Development of Disadvantaged Children and Youth", Journal of Negro Education, 33:264-74; Summer 1964.

Russell, David H., The Dimensions of Children's Meaning Vocabularies In Grades Four Through Twelve, University of California Publications in Education, Vol. 11, No. 5, Berkeley: University of California Press, 1954; pp. 315-414.

Integration

A. Desegregation Plans

Baltimore City Public Schools, "Equality of Educational Opportunities -- A Progress Report for the Baltimore City Public Schools", March 1964.

- Barry, Franklin S., and Jerome Baker, "Current Progress Report and Proposed Extension of a Study of Integration in Racially Imbalanced Urban Public Schools", Syracuse Public Schools and Syracuse University Youth Development Center; February 1965.
- Dentler, Robert A., Some Current Schemes for School Integration: An Evaluation and a Proposal, New York: Institute of Urban Studies, Teachers College, Columbia University, October 1964.
- Detroit Board of Education, "Board Action and Staff Commentaries on the Recommendations Submitted in March, 1962 by the City Advisory Committee on Equal Educational Opportunities", June 1962.
- Freudenthal, Daniel K., "How Berkeley Came to Grips with DeFacto Segregation" Phi Delta Kappan; 46:184-88; December 1964.
- Glazer, Nathan, "School Integration Policies in Northern Cities", Journal of American Institute of Planners, August 1964.
- Hansen, Carl F., Addendum: A Five Year Report on Desegregation in the Washington, D.C. Schools, New York: Anti-Defamation League, 1960.
- Hauser, Philip, "Report to the Board of Education, City of Chicago", Advisory Panel on Integration of Public Schools, March 1964.
- Kurland, Norman, Integration in Education, Addendum; Troy Rotary Club, September 15, 1964.
- Malmborg, Eleanor D., "Recent School Board Action Related to DeFacto Segregation of Pupils and Integration of Employed Personnel", NEA Research Memo, Washington, D.C., April 1964.
- Mauch, J.E., "Education Park", American School Board Journal, 150:9-11, March 1965.
- Miehalak, Joseph, "Plans for Integration in New York City Schools", American School Board Journal, 149:25-27, July 1964.
- New Haven Public Schools, "Proposals for Promoting Equality of Educational Opportunities and Dealing with the Problem of Racial Imbalance", New Haven: Board of Education, July 1964.
- New York City Board of Education, The Educational Park in New York City, New York: The Board, April 1965.
- Washington Urban League, "Integration and Washington's Public Schools", June 23, 1964.
- Wolff, Max, "Toward Integration of Northern Schools", Journal of Educational Sociology, 36:241-96, February 1963.

B. General Issues on School Desegregation

Board of Education of the City of New York, How the Curriculum Can Promote Integration; 16th Annual Curriculum Conference, January 22, 1964.

Commission on Civil Rights, Conference Before the U.S. Commission on Civil Rights, Fourth Annual Educational Conference on Problems of Segregation and Desegregation of Public Schools, Washington, D.C.: U.S. Government Printing Office, May 1962.

Conference Before the United States Commission on Civil Rights, "Third Annual Conference on Problems of Schools in Transition from the Educators' Viewpoint", Williamsburg, Virginia, 1961; (Discussion of program to alleviate the handicaps of those who have been segregated in public schools -- now in integrated schools).

Educational Policies Commission, Education and the Disadvantaged American, Washington, D.C.: National Educational Association, 1962.

Hansen, Carl F., "The Scholastic Performance of Negro and White Pupils in the Integrated Public Schools of the District of Columbia", Harvard Educational Review, Summer 1960.

Haggstrom, W.S., Self-Esteem and Other Characteristics of Residentially Segregated Negroes, Unpublished PH.D. Dissertation.

Katz, Irwin, "Review of Evidence Relating to Effects of Desegregation on the Intellectual Performance of Negroes", American Psychologist, 19: 381-99, June 1964.

Klopf, G., and I.S. Laster (editors), Integrating the Urban School, New York, Teachers College, Columbia University, 1963.

Lipton, Aaron, "Classroom Grouping Integration", Integrated Education, 2: 49-54, February - March 1964.

Proceedings of the Invitational Conference on Northern School Desegregation: Progress and Problems; New York: Graduate School of Education, Yeshiva University, April 29, 1962.

St. John, Nancy H., "The Effect of Segregation on the Aspirations of Negro Youth", Harvard Educational Review, 36:284-94; Summer 1966.

Stallings, F.H., "A Study of the Immediate Effects of Integration in Scholastic Achievement in the Louisiana Public Schools", Journal of Negro Education, 1959; Vol. 28, 443.

Wertham, "Psychiatric Observations of Abolition of School Segregation", Journal of Educational Sociology, 1953, 26:333-36.